

SESSION B: OPTICS, LASERS and PHOTONICS

August 15, 2006 (Tuesday)

Chairperson: Prof. Nguyen Dai Hung (IPE, VAST)

(B-01)

13: 30 – 13:55

AN ADAPTIVE SPECTROELLIPSOMETRIC TECHNOLOGY FOR ECOLOGICAL MONITORING OF THE WATER SYSTEMS

(Invited talk)

F.A. Mkrtchyan, V.F. Krapivin, V.I. Kovalev, V.V. Klimov, S.P. Golovachev (Institute of Radioengineering and Electronics. Moscow, Russia)

(B-02)

13: 55 – 14:20

LIDAR APPLICATION FOR AIR QUALITY MONITORING: CASE OF AEROSOL CHARACTERISATION AND INDUSTRIAL SITE SURVEY OF GASEOUS LEAK

(Invited talk)

E. Frejafon, S.Geffroy, L. Ducharne (INERIS, France)

(B-03)

14: 20 – 14: 45

PHOTONIC RESEARCH AND DEVELOPMENT IN UNIVERSITI TEKNOLOGI MALAYSIA

(Invited talk)

Noriah Bidin (Universiti Teknologi Malaysia, Malaysia)

(B-04)

14: 45 – 15:05

STUDY THE BEHAVIOR OF LASER PLASMA IN LONGITUDINAL MAGNETIC FIELD

Noriah Bidin, R.Qindeel, Y. Mat Daud (Universiti Teknologi Malaysia, Malaysia)

15: 05 – 15: 20

Coffee break

Chairperson: Prof. DrSc. Dinh Van Hoang (VNU Hanoi)

(B-05)

15: 20 – 15: 45

CHARACTERIZATION OF INTRINSIC PROPERTIES OF SMALL BIOMOLECULES

François PIUZZI, Michel Mons, Iliana Dinicoli, Clelia Canuel, W. Chin, M.Elhanine, benjamin tardivel (CNRS, CEA, France)

- (B-06)
15: 45 – 16: 10 **STRUCTURAL PROPERTIES OF BIOMOLECULES IN THE GAS PHASE: WHAT CAN WE LEARN ?**
 (Invited talk)
Pierre CARCABAL (LPPM, Universite de Paris-11, France)
- (B-07)
16: 10 – 16: 30 **THEORETICAL CALCULATION OF SCATTERING PARAMETERS OF SOME BIOLOGICAL TISSUES WHEN IRRADIATED BY LASER BEAMS OF WAVELENGTHS OF 780NM AND 940NM**
Tran Thi Ngoc Dung, Tran Minh Thai (College of Technology, Ho Chi Minh, Vietnam)
- (B-07)
16: 30 – 16: 50 **DESIGN, FABRICATION AND CHARACTERIZATION OF ERBIUM-DOPED POLYMER SINGLE MODE WAVEGUIDE FOR OPTICAL AMPLIFICATION AT 1540 NM**
Anh Quoc LE QUANG, Joseph ZYSS, Isabelle LEDOUX (ENS Cachan, France)
- (B-09)
16: 50 – 17: 10 **WIDE RANGE WGM LASERS FROM ERBIUM/YTTERBIUM CO-DOPED PHOSPHATE GLASS MICROSPHERES**
 (Invited talk)
Tran Thi Tam, Dang Quoc Trung, Le Huu Minh, Tran Anh Vu, Do Ngoc Chung and Patrice Fe'ron (College of Technology, Ha Noi)
- (B-10)
17: 10 – 17: 30 **IMPROVEMENT OF THE LOCAL ERROR SPLIT-STEP FOURIER METHOD TO SOLVE THE NONLINEAR SCHRÖDINGER EQUATION**
Thanh Nam Nguyen, Thierry Chartier (ENSSAT, Lannion, France)

August 16, 2006 (Wednesday)

Chairperson: Prof. Nguyen The Binh (VNU Hanoi)

- (B-11)
08: 00 – 08: 25 **SPECTRAL STRUCTURE AND OTHER CHARACTERISTICS OF HIGH POWER DIODE LASER BARS THAT PACKAGED IN VIETNAM**
 (invited talk)
Vu Van Luc, Bernard Jounet, Luong Vu Hai Nam, Pham Van Truong and Pham Van Ben (IMS, VAST Vietnam)
- (B-12)
08: 25 – 08: 45 **EXPERIMENTAL OBSERVATIONS OF FOUR-WAVE MIXING IN OPTICAL SEMICONDUCTOR AMPLIFIER (SOA).**
Vu Doan Mien and Vu Thi Nghiem (IMS, VAST Vietnam)

(B-13) 08: 45 – 09: 05	FREQUENCY STABILIZATION OF A CONTINUOUS WAVE SINGLY RESONANT OPTICAL PARAMETRIC OSCILLATOR EMITTING IN THE RED <i>T. H. My, F. Bretenaker, C. Drag, and J.-M. Melkonian (Laboratoire Aime Cotton, CNRS France)</i>
(B-14) 09: 05 – 09: 25	PREPARATION OF THE SINGLE MODE PLANAR OPTICAL SPLITTER MODULES AND THEIR CHARACTERIZATIONS <i>Vu Doan Mien, Vu Thi Nghiem and Pham Van Truong (IMS, VAST Vietnam)</i>
(B-15) 09: 25 – 09: 45	HIGH POWER 780NM DFB LASER WITH 500KHz LINEWIDTH <i>T-P. Nguyen, A. Klehr, O. Brox, G. Erbert, and G. Tränkle (Ferdinand Braun Institut für Hochstfrequenztechnik, Berlin, Germany)</i>
09: 45 – 10: 00	Coffee break <u>Chairperson: Prof. DrSc. Tran Ba Chu (MCSET, Hanoi)</u>
(B-16) 10: 00 – 10: 30	PHOTONICS IN INTERSTELLAR SPACE AND IN THE LABORATORY (Invited talk) <i>Philippe Brechignac (Universite de Paris-Sud, France)</i>
(B-17) 10: 30 – 10: 50	CHEMICAL COMPOSITION OF AGB STARS FROM HIGH RESOLUTION OPTICAL SPECTROSCOPY <i>Dinh Van Trung (Institute of Astrophysics, Taiwan)</i>
(B-18) 10: 50 – 11: 10	HYDROCARBON FLAMES BY-PRODUCTS: LABORATORY ANALOGUES OF THE INTERSTELLAR CARBONACEOUS DUST ? <i>Cao Anh Tuan, T. Pino, E. Dartois, L. d'Hendecourt, Ph. Bréchignac (LPPM, Uni. Paris-11, France)</i>
(B-19) 11: 10 – 11: 30	SIMULATION OF LASER BEAM PROPAGATION IN BRAIN BY METHOD MONTE CARLO and ADVANTAGE OF LASER ACUPUNCTURE IN DRUG DETOXIFICATION <i>Tran Thi Ngoc Dung, Tran Minh Thai (College of Technology, Ho Chi Minh, Vietnam)</i>
Buffet Lunch	

Chairperson: Prof. Nguyen Tho Vuong (University of Hue)

(B-20)
13: 30 – 13: 55

A EMPIRICAL METHOD IN DETERMINATION OF OPTICAL PUMP PARAMETERS FOR FLASHLAMP-PUMPED ERBIUM GLASS LASER

(Invited talk)

Tuan Ta Van and Khoi Giang Manh (Nacentech, MST, Vietnam)

(B-21)
13: 55 – 14: 20

OPTICAL TECHNIQUES FOR THE INVESTIGATION OF DEFECTS IN HIGH POWER LASER DIODES

(Invited talk)

Tran Quoc Tien and Jens W. Tomm (Max-Born Institute for Nonlinear Optics & Short Pulse Spectroscopy, Berlin, Germany)

(B-22)
14: 20 – 14: 40

RECEARCH AND DEVELOPMENT OF DIODE-PUMPED PASSIVELY Q-SWITCHED Nd:YVO4 LAS USING Cr4+:YAG AS SATURABLE ABSORBER

Nguyen Trong Nghia, Do Quoc Khanh, Trinh Dinh Huy, Le H. Hai, Nguyen Dai Hung (IPE, VAST Vietnam)

(B-23)
14: 40 – 15:00

ANALYSIS OF DURATION LIMIT OF LASER PULSES EMITTED FROM A CE:LLF SHORT CAVITY

Le Hoang Hai, Nguyen Dai Hung, Hoang Huu Hoa, Alex V. QUEMA, Nobuhiko (University Le Quy Don, Vietnam)

15: 00 – 15: 15

Coffee break

Chairperson: Dr. Tran Thi Tam (College of Technology, HaNoi)

(B-24)
15: 25 – 15: 50

RANDOM LASER IN ZnO POWDER

(Invited talk)

Nguyen The Binh, Nguyen Van Hao, Duong Vu Truong, Nguyen Thi Hang, Pham Van Thin (College of Natural Sciences, Hanoi, Vietnam).

(B-25)
15: 50 – 16: 10

SEMICONDUCTOR SATURATED ABSORBER MIRROR (SESAM) USED FOR THE GENERATION OF MODE-LOCKING ULTRASHORT LASER PULSES AT 1064 nm

Do Quoc Khanh, Nguyen Trong Nghia, Le Thi Thanh Nga, Vu Duong, Pham Long, Nguyen Dai Hung (IPE, VAST, Vietnam)

(B-26)
16: 10 – 16: 30

DEVELOPMENT OF A RAPID-SCANNING AUTOCORRELATOR FOR SIMULTANEOUS MEASUREMENT OF ULTRASHORT LASER PULSES

Do Quoc Khanh, Nguyen Trong Nghia, Le Quang Phuong, Doan Hoai Son, Nguyen Dai Hung (IPE, VAST, Vietnam)

- (B-27)
16: 30 – 16: 50 **DEVELOPMENT A NEW PULSED POWER SOURCE FOR COPPER VAPOR LASER**
Nguyen Tien Tuan, Nguyen Cong Thanh, Chu Dinh Thuy and Nguyen Quang Minh (IPE, VAST, Vietnam)
- (B-28)
16: 50 – 17: 10 **A DESIGN OF COMPACT POWER SUPPLY FOR FLASH LAMP PUMPED PULSED Nd-YAG LASER**
Khoi Giang Manh and Tuan Ta Van (Nacentech, MST, Vietnam)
- (B-29)
17: 10 – 17: 30 **DEVELOPMENT OF THE QUENCHING - CAVITY EFFECT AND ITS APPLICATIONS TO NON-MODELOCKABLE GENERATION OF PICOSECOND LASER PULSES**
Doan Hoai Son, Pham Hong Minh, Trinh Dinh Huy, Dinh Xuan Khoa, Do Q Hoa, Nguyen Dai Hung (IPE, VAST)

August 17, 2006 (Thursday)

Chairperson: Prof. Pham Van Hoi (IMS, VAST)

- (B-31)
08: 00 – 08: 20 **ERBIUM DOPED MULTIPLAYER POROUS SILICON FILM FOR APPLICATION IN PHOTONIC DEVICES**
Bui Huy, Pham Van Hoi, Pham Thanh Binh, Tran Thi Cham, Le Quang Huy and Dao Tran Cao (IMS, VAST, Vietnam)
- (B-32)
08: 20 – 08: 40 **APPLICATION OF DIGITAL TECHNIQUE FOR STABILIZING ERBIUM-DOPED FIBER AMPLIFIER OPERATION**
Ha Xuan Vinh, Pham Van Hoi, Tran Thi Cham, Nguyen Quoc Tuan (IMS Nha Trang, VAST, Vietnam)
- (B-33)
08: 40 – 09: 00 **INVESTIGATION AND FABRICATION OF THE NANO - SIZED OPTICAL FIBER PROBE USED IN NEAR-FIELD SCANNING OPTICAL MICROSCOPE (NSOM-SNOM)**
Do Ngoc Chung, Dang Quoc Trung, Tran Thi Tam (College of Technology, VNUH, Vietnam)
- (B-34)
09: 00 – 09: 20 **THE SHIFT AND WAVELENGTH CONVERSION BASED ON DFB LASER AND SOA TO USE FOR SINGLE PHOTON COMMUNICATION SYSTEM**
Luong Vu Hai Nam, Vu Van Luc, Bernard Jounet and Tran Thi Phuc (IMS, VAST Vietnam)

(B-35)	
09: 20 – 09: 40	DESIGN AND FABRICATION OF STRUCTURE OF OPTICAL SPLITTER 1X2 USING HYBRID NANO MATERIAL ASZ <i>Nguyen Tat Thanh, Nguyen Thanh Binh, Nguyen Thanh Huong, Duong Thanh Trung, Lam T. Kieu Giang, Le Quoc Minh (IMS, VAST Vietnam)</i>
(B-36)	
09: 40 – 10: 00	ACHIEVEMENTS ON LASER PHYSICS AND LASER TECHNOLOGY: FROM MASER TO GRASER <i>Nguyen Tho Vuong (University of HUE, Vietnam)</i>
10: 00 – 10: 15	Coffee break
	<u>Chairperson: Prof. Ta Van Tuan (Nacentech, MST)</u>
(B-37)	
10: 15 – 10: 40	A DEVICE FOR OBSERVING THERMAL IMAGES PROJECTED WITH CO2 LASER <i>Pham Trong Hien, Tran Ba Chu, Hoang Duc Manh, Le Trong Thiep (Institute of Electronics and Telecom., Hanoi, Vietnam)</i>
(B-38)	
10: 40 – 11:00	THE RAMAN LASER WITH DIFFERENT PUMP POWERS <i>Le Minh Tuan, Ho Quang Quy, Chu Van Lanh (University of VINH)</i>
(B-39)	
11:00 – 11: 20	RAMAN STIMULATED SCATTERING IN THREE-DIMENSIONAL APPROACH <i>Chu Van Lanh, Dinh Xuan Khoa, Ho Quang Quy (University of VINH)</i>
(B-40)	
11: 20 – 11: 40	INVESTIGATING PULSE DEFORMED BY SATURABLE ABSORBER AND THE ACTIVE MEDIUM THE CPM DYE RING LASER <i>Dinh Xuan Khoa, Tran Manh Hung (University of VINH)</i>
	Buffet Lunch
	<u>Chairperson: Prof. Dinh Xuan Khoa (University of Vinh)</u>
(B-41)	
13: 30 – 13: 50	SIMULATION REDISTRIBUTION OF LASER BEAM FROM NONLINEAR RESONATOR <i>Ho Quang Quy, Tran Ba Chu, Mai Luu, Tran Ngoc Truoi (Institute of Applied Physics, Hanoi, VietNam)</i>
(B-42)	
13: 50 – 14: 10	OPTICAL BOUNDARY LAYER OF A BEAM IN TUBAL MEDIUM <i>Le Thi Quynh Anh, Nguyen Van Den, Ton That Quy, Nguyen Thanh Nhat Quang (College of Natural Sciences, Ho Chi Minh)</i>

<i>(B-43)</i> 14: 10 – 14: 30	THE SEMI-STATISTICAL APPROXIMATION FOR THE SECOND HARMONIC GENERATION PUMPED BY THE ARBITRARY PULSE <i>Tran Hai Hung, Ho Quang Quy (University of VINH, Vietnam)</i>
<i>(B-44)</i> 14: 30 – 14: 50	SEMI-CLASSICAL THEORY FOR DISTRIBUTED-FEEDBACK LASER <i>Cao Thanh Le, Dao Xuan Hoi (Pedagogic College of HATINH)</i>
<i>(B-45)</i> 14: 50 – 15: 10	INFLUENCE OF NRZ CODE IN OPERATION OF DFB LASER WITH MULTI-SECTIONS <i>Nguyen Van Phu, Dinh Van Hoang (University of VINH, Vietnam)</i>
<i>(B-46)</i> 15: 10 – 15: 30	CHIRP AND TECHNIQUE OF CHIRP COMPENSATION IN LASER RESONATOR <i>Giang Manh khai, Trinh Dinh Chien (College of Natural Sciences, HN)</i>
15: 30	Coffee Break
	Closing meeting at the Plenary Session